CLAIMS

What is claimed is:

1. A computer program for displaying visually realistic raw radar signals comprising, a radar display fade algorithm wherein the algorithm includes alpha blending and texture mapping for producing a slow fade whereby a slow fade is rendered on a radar display screen.

2. The computer program of Claim 1 further comprising:

a means for drawing returns on a radar sweep ray texture; and

a means for capturing a snapshot of a frame buffer into a texture.

3. The computer program of Claim 2 wherein the radar display fade algorithm includes a means for applying an initial alpha value.

4. A simulation system displaying visually realistic raw radar signals, the system communicating with a separate process, the system communicating with a network interface and the system operating independently of any particular radar beam propagation model comprising:

a radar simulation application that further comprises a radar display fade algorithm wherein the algorithm includes alpha blending and texture mapping for producing a slow fade; and

the radar simulation system being controllable externally and receiving data from the network interface for operating independently of any particular radar beam propagation model.

5. The simulation system of Claim 4 further comprising, a WINDOWS operating system, wherein the WINDOWS operating system provides the operating system for the simulation system.

6. The simulation system of Claim 4 further comprising,
a front buffer;
a back buffer; and
data transfer between the back buffer and front buffer for providing alpha blending and texture mapping off screen.

7. The simulation system of Claim 4, wherein the radar simulation application further comprises a display screen, an instrument panel depicted on the display screen and a radar screen is depicted on the display screen.

8. The simulation system of Claim 7 wherein the instrument panel is an aircraft instrument panel.

9. A simulation system for displaying visually realistic raw radar signals, the system operating independently of any particular radar beam propagation model comprising:

a radar simulation application that further comprises a radar display fade algorithm wherein the algorithm includes alpha blending and texture mapping for producing a slow fade; and

the radar simulation system being controllable for operating independently of any particular radar beam propagation model.

10. The simulation system of Claim 9 further comprising: a WINDOWS operating system, wherein the WINDOWS operating system provides the operating system for the simulation system.

11. A method of displaying visually realistic raw radar signals comprising:

defining initial conditions;

clearing a back buffer;

shrinking a viewport for reducing texture size;

applying an initial alpha value

texture mapping a rendering to the back buffer with alpha blending;

copying a present display to the back buffer;

increasing a sweep angle;

drawing returns on a radar sweep ray texture; and

capturing a snapshop of the frame buffer into a texture.

12. The method of Claim 11 wherein the initial conditions comprise: a sweep angle of about zero degrees, an "i" value equal to zero, and an alpha angle of about 0.980 degrees.

13/~~14~~. The method of Claim 11/~~12~~ wherein the sweep angle is increased by about 0.720 degrees.

14/~~15~~. The method of Claim 11/~~12~~ further comprising: a delay of about 30 milliseconds for animation delay.

Rule 126(5)